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11 MAR 1983

MEMORANDUM FOR: (See Addressees List)

FROM: Charles V. Boykin  
Chief, Strategic Resources Division  
Office of Global Issues

SUBJECT: Afghanistan: The Impact of the Soviet Occupation  
on Agriculture--1982 [redacted] 25X1

1. The attached memorandum assesses the impact of the Soviet occupation on 1982 grain production in Afghanistan. We find that contrary to some reports, crop losses imposed as a result of military action were minimal. This judgment is based primarily on satellite imagery taken during the 1982 crop season. [redacted] 25X1

2. This assessment was produced [redacted] Agricultural Assessment Branch, Strategic Resources Division, Office of Global Issues. [redacted] 25X1

3. Comments and questions are welcome and may be addressed to the Chief, Agricultural Assessment Branch, [redacted] 25X1

[redacted] 25X1

Attachment:

Afghanistan: The Impact of the Soviet Occupation on Agriculture--1982,  
GI M 83-10053, March 1983 [redacted] 25X1

[redacted] 25X1

[redacted] 25X1

SUBJECT: Afghanistan: The Impact of the Soviet Occupation  
on Agriculture--1982

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SUBJECT: Afghanistan: Impact of the Soviet  
Occupation on Agriculture--1982 [ ]

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OGI/SRD/AA [ ] (11 March 1983)

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Central Intelligence Agency



Washington, D.C. 20505

## DIRECTORATE OF INTELLIGENCE

11 March 1983

Afghanistan: The Impact of the Soviet Occupation  
on Agriculture--1982

Summary

Imagery reveals that crop losses imposed as a result of military action, despite reporting to the contrary, were minimal in 1982, and even in the major zones of conflict, crops were usually sown and harvested on time. Overall, Afghanistan appears to have had a satisfactory grain harvest last year. While some Soviet-occupied urban centers undoubtedly suffered spot food shortages during the year, largely because of internal transport or distribution problems, food supplies for the country as a whole remained adequate. Furthermore, given favorable growing conditions and no major change in the nature or the dimensions of the Soviet occupation, they should remain so through 1983.

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This paper was prepared [redacted] Agricultural Assessment Branch, Strategic Resources Division, Office of Global Issues (AAB/SRD/OGI) with a contribution provided [redacted] Eurasia Branch, Geography Division, Office of Global Issues (ERA/GD/OGI). Comments and questions may be addressed to Chief, AAB/SRD/OGI [redacted]

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Afghanistan: The Impact of the Soviet  
Occupation on Agriculture--1982 [ ]

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Most of the agricultural areas of Afghanistan were not seriously affected by either the Soviet occupation or by insurgent activity during the 1982 crop season. Fighting during that period was largely concentrated in a limited number of strategic valleys and along major roads near Kabul. Imagery of these areas also does not support claims that the Soviets or the Afghan army deliberately or systematically destroyed crops and burned fields on a large scale. It does reveal that in small and scattered localities, where the entire population may have fled, some fields remained untilled throughout the crop season, but such areas were not widespread. [ ]

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Sown Area and Labor Force

While Afghan refugees have frequently reported that the Soviet occupation and the resultant exodus of refugees has triggered a reduction of the sown area in Afghanistan, official statements refute that claim. In April of 1982 a member of the Afghan Ministry of Agriculture estimated that the total amount of land allocated for sowing had increased by 3.5 percent from the previous year. This allocation included a 5 percent increase for wheat, a 62 percent increase for cotton, a 1 percent increase for vegetables, and a 0.3 percent increase for fruits. Official announcements stated that 2.31 million hectares had been planted in wheat, 73,000 in cotton, 94,000 in fruits and vegetables, and 2,400 in sugarbeets. Such increases are impossible to confirm, because agricultural and other statistics have never been reliable in Afghanistan. [ ]

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It is doubtful that the exodus of some 3 million Afghans\*, out of an officially estimated total population of 15.45 million (1979), has impacted adversely on agricultural output. The pre-occupation agricultural labor force was probably in excess of need. Furthermore, more than half of the refugee group in Pakistan is composed of women, children and the elderly; most of the able-bodied men, which make up the remainder, return periodically to Afghanistan to assist in planting and harvesting as well as to fight. Thus, labor inputs into agriculture appear sufficient in most areas to maintain normal levels of production. [ ]

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Weather Conditions

Although meteorological data for Afghanistan in 1982 are incomplete, [ ] weather was generally good throughout the year. There were no reports of floods or extended droughts, and the Panjsher Valley, often subject to periods of adverse weather, experienced no weather-related problems. Rainfall throughout the year was scattered in all regions, and there were no periods of prolonged wetness. Most crops in Afghanistan, however, depend on irrigation water and, therefore, the amount of water obtained from snowmelt is a more critical factor. During the past winter (1981-82), areas north of Kabul received slightly above-average precipitation, and ground water supplies should have been adequate. Imagery reveals that

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\* Derived from late 1982 UN estimates.

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this was the case, for canals in the intricate irrigation networks were generally filled throughout the growing season. [ ]

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### The 1982 Grain Crop

Analysis of 1982 reconnaissance imagery of the grain producing areas of the country indicates that fair to good crop conditions prevailed through the growing season in most regions and that harvesting was initiated on or nearly on schedule everywhere. Furthermore, repetitive, good quality imagery--approximately 800 frames--covering the agricultural areas throughout the crop season, clearly indicates that the Soviets did not systematically destroy the grain crop before it could be harvested. The few examples of crop destruction or burning that we observed are believed to have been the unavoidable consequence of military activity. [ ]

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crops were sometimes harvested too early, before they were fully ripe, because of fear of Soviet destruction. While such actions may have occurred in isolated instances, especially along major roads where the military was most active, imagery suggests that this was not a widespread phenomena. [ ]

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Analysis of imagery covering the strategic Panjsher Valley, 60 miles northeast of Kabul, reveals that the 1982 winter grain harvest was nearly on schedule in late June and early July, and that yields were probably in the fair range in most areas. This region, a major insurgent stronghold, is agriculturally rich, and villages in it are reported to have been subjected to repeated bombings. [ ]

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[ ] Some grain was undoubtedly damaged, as was a part of the mulberry crop that provides the population of this area with a dietary supplement, but the damage was localized and on a small scale. A small number of fields were burned in several separate patches along the main road east and west of Rokha (3515N, 6926E) and also in a side valley north of Nejrab (3502N, 6937E). Some limited abandonment of fields also occurred near these areas. Near the town of Ezrya, further up the valley (3529N, 6945E), a large tract remained untilled throughout the growing season. Furthermore, even though many people left the Panjshir during the Soviet offenses, some of them have returned, and earlier predictions of the development of dire economic conditions in the area have not materialized. [ ]

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Agricultural production in areas along the main road between Kabul and Peshawar, in the vicinity of Jalalabad, or in the valleys of Nuristan has likewise not appeared materially influenced by the war. Swathing\* in these locations was on schedule or slightly ahead of schedule in mid-May, and imagery indicates that most of the harvest was completed by mid-June. Imagery also reveals that shocks\*\* were thick and closely spaced in most fields, suggesting that yields were good. This conclusion is further substantiated by the fact that threshing yards in the area were active for several weeks. The

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\* The first stage of the harvest where the grain is cut.

\*\* Shocks are a group of sheaves of grain placed on end and supporting one another in a field.

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Ministry of Agriculture of Afghanistan reported above average yields of wheat and barley in this region. [ ]

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In the lower Konar Valley, near the Pakistan border northeast of Jalalabad, yields in 1982 were less satisfying, ranging only from poor to fair. The relatively poorer crop here does not appear to be a result of deliberate crop destruction by hostile military action, but rather the consequence of a locally severe labor shortage which, in turn, precipitated the abandonment of some tracts of previously cultivated land. Furthermore, the Konar Valley grain crop was harvested in mid-May, and may have been cut before it was fully ripe. This would naturally result in lower yields. This area, however, contributes only a small percentage of the total Afghan grain crop. [ ]

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The grain crop also looked poor in a few locations of Paktia Province, southeast of Kabul, where insurgency at times has been intense. As a result of military activity near the town of Khost, some agricultural land and crops were destroyed, and military equipment has been observed in grain fields at the edge of town. Even here, however, winter grains sown in fields adjacent to the battle zones were harvested. The proximity of this area to Kurram Province in Pakistan, where a large concentration of Afghan refugees has settled, permits peasants living in Pakistan-based camps to work their fields in Afghanistan without much difficulty. [ ]

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A number of western journalists and Afghan refugees in Pakistan have filed accounts of the bombing of villages and the destruction of crops by Soviet forces in Lowgar Province, south of Kabul. One report, written in September, stated that harvested grain in that area had been burned and that irrigation systems in several villages along the Kabul-Gardez road had been destroyed. Refugee sources also report that Soviet and Afghan troops have attempted to create a "sanitary zone" along this road by burning the vegetation. Unfortunately imagery is not available to either confirm or refute these claims. [ ]

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Kabul has not published crop production data for 1982, but in September of 1981, Soltan Ali Keshtmand, Chairman of the Council of Ministers, estimated that wheat production in 1982 would reach 2.9 million tons, a level that compares favorably with that for several years since 1975 and with the officially reported production of 2.75 million tons in 1981. In September of 1982, USDA estimated Afghan grain production for the year at more than 2.85 million tons. This is attributed in large part to increased use of fertilizer and improved seed, more irrigated land, and greater credit availability to small farmers. Our agronomic analysis indicates that such production figures are indeed possible, considering the favorable weather and good harvests observed on the imagery. Because of hoarding, black marketeering, and the Afghan tendency to under report production figures to avoid taxes, however, the total will probably never be known by officials in Kabul. [ ]

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#### Preparing for the Future

In addition to continuing its efforts to contain the Afghan insurgency, whose impact on agricultural output has thus far been only nominal, the USSR has found it necessary to involve itself with regime policies relating to land reform, reclamation, and the application of improved agricultural

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technology. That support has not been extensive to date, however, and it is now quite clear that its primary purpose--the winning of regime allegiance in the countryside--has failed. The land reform program, for example, by mid-September 1982, involved only 40,000 peasants and a mere 75,000 hectares of land. A program of this magnitude is obviously insufficient to impact significantly on overall agricultural production. [ ]

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The Soviets are also lending support to regime efforts to restore and extend existing irrigation systems, upon which most of the country's cultivated agriculture is dependent. While recent information on the full extent of Soviet involvement is at this time limited, [ ]

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[ ] the USSR has agreed to lend its support to irrigation projects designed to benefit agriculture in Afghani territory adjacent to the Amu Darya in the north; on the Rud-e Jolgeh-ye Janab, not far from Ghazni; on the lower Darya-ye Konar and the Darya-ye Kabul near Jalalabad; and in a number of other locations throughout the country. As of June 1982 the regime claimed that about 3,000 hectares of arid land had been newly supplied with irrigation water; that the regulation of irrigation on another 15,000 hectares would soon be completed; and that the repair of irrigation networks serving another 3,000 hectares was at that time underway. [ ]

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Finally, Soviet advisors are being used by the Kabul regime to promote the mechanization of agriculture, the increased use of fertilizer, and the distribution and sowing of improved seed. Most of the investment associated with these efforts is currently concentrated on a few state farms, which collectively comprise some 34,000 hectares of land. These farms, showpieces of the pro-Soviet regime, have been targeted by the insurgents, and according to government claims, many of them have suffered extensive damage. Agriculture elsewhere remains largely unmechanized and dependent on large inputs of manual labor and the widespread use of animal power. [ ]

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#### Soviet Aid

Although the Soviet military occupation of Afghanistan has now entered its fourth year, insurgents still control 80 to 90 percent of the countryside. As a result most of the rural areas continue to be self sufficient in food. In the cities, however, shortages are critical at times, and the Soviets are increasingly finding it necessary to provide agricultural commodities. Unconfirmed Afghan official reports have put 1982 grain imports from the Soviet Union at a figure considerably higher than the 80,000 metric tons reported in 1981, another indication of the precarious condition of Afghanistan's cities. Unofficial reports have stated that up to 140,000 tons of wheat and flour were committed to Afghanistan in 1982, but considering the poor Soviet harvest, the amount actually delivered is conjectural. Kabul reported in May 1982 that 5,000 tons of improved wheat seed had been obtained from the Soviets. Also, at the same time, 80,000 tons of chemical fertilizer were supplied on a loan and cash basis. The Afghans now produce much of their own fertilizer at the large plant at Mazar-e-Sharif. [ ]

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#### Outlook

Despite a projected slight decrease in cultivated hectarage, agricultural output in 1983--barring climatic adversity--should satisfy consumer demands,

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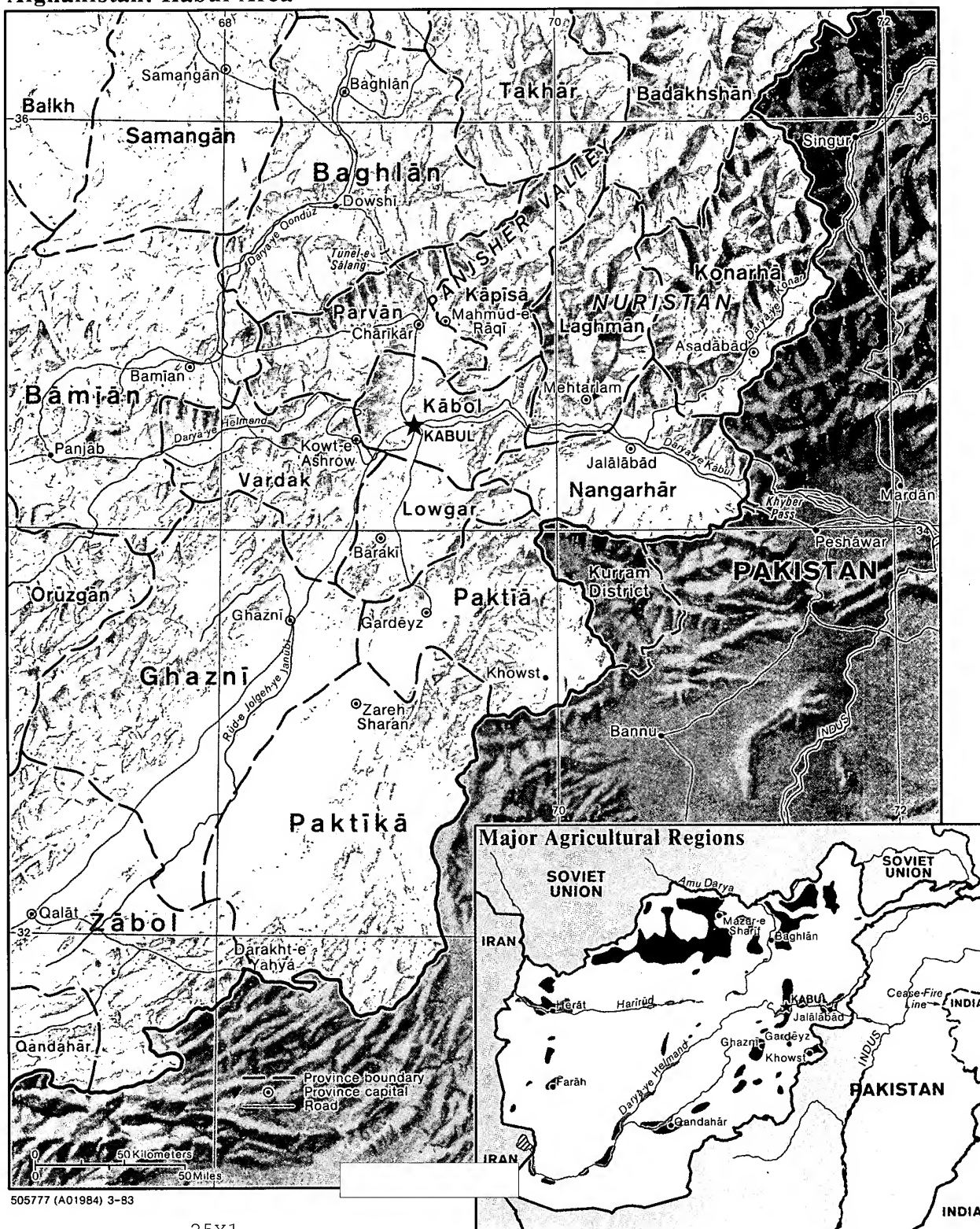
including those of the insurgent forces, throughout rural Afghanistan. Spot shortages may continue to plague major Afghan urban centers, however, given the shortcomings of the distribution system, the susceptibility of Soviet convoys to insurgent attacks, and the tendency of the occupied urban areas to increasingly depend on Soviet imports.

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Figure 7  
Afghanistan: Kabul Area



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